George's PINK PAGES December 2001
What will be Important in 2002?

As a scientist, I was taught to deal in cold hard facts, using no assumptions, no guesses, ignore anecdotes, and avoid "gray" areas. As a result, I go to Las Vegas only to see the shows, ignore the football point spread, don't play any lotteries, and don't allow any "strange" queens in my hives. Then, WHY do I dare PROGNOSTICATE what I think might be important in 2002? Based on what bee scientists have found in very recent years, then I dare predict there will be more good news about the control of mites without the use of many chemicals, less bee death caused by mites, more beeHAVERS upgrading to beeKEEPERS, and a generally improved beekeeping in the U. S.

Since the queen bee is the most important "critter" in a colony, let me briefly, (being 'brief' is tough for me) tell you about TWO noteworthy types of queens. These queen "types" have nothing to do with the race of bees, like Italian, Carniolan or Russian hybrids, but rather a different genetic factor that can be present in any race. I am speaking about HYGIENIC queens, and SMR queens.

Almost 40 years ago, the famous Dr. W. C.. Rothenbuhler of Ohio State University found that certain bees would remove dead larvae from cells, and another group of bees would remove dead pupae from capped cells, and ANOTHER GROUP would perform BOTH "cleanup" functions. Rothenbuhler's research showed that bees who possessed BOTH of hese cleanup functions were quite resistant to American Foul Brood disease. About the same time, Steve Taber and Martha Gilliam, working independently of each other found the same thing. Why wasn't this discovery pursued at that time? LACK OF MONEY FOR RESEARCH! Terramycin had just been found a few years before Rothenbuhler's work and the use of this seemed to have the problems of AFB temporarily solved, so this research concerning bees "cleaning" their nest site (hence, HYGIENIC BEHAVIOR) was "put on the back shelf" to collect dust.

However, about 10-15 years ago, Dr. Marla Spivak of the University of Minnesota, desperate to find non chemical methods of Varroa mite reduction, started intensive research on Rothenbuhler's findings. Armed with her findings that only the bees from certain queens exhibited this "nest cleaning" genetic difference, she bred breeder queens via artificial insemination of the drones produced by these certain queens to the point that the University of Minnesota's apiary of Italian bees now has colonies that exhibit HYGIENIC BEHAVIOR. Dr. Spivak provides HYGIENIC breeder queens to Glenn Apiaries in California who will sell you new queens that they have been produced from these Minnesota HYGIENIC queens. At this time, these queens are rather expensive for hobbyist beekeepers, but who knows, if some respected commercial beekeepers or well known side-liners and/or hobbyist beekeepers enjoy success of having bees that can stay alive and produce without the use of chemicals to control mite population, this will be as important as finding Terramycin. Further, if it is found that these HYGIENIC bees are resistant to other diseases like American Foul Brood, Chalk Brood, Nosema, etc., this finding might equal Langstroth's discovery of "bee space".

In the past 5 years, Drs. Harbo and Harris of the Baton Rouge Bee Laboratory, have found that there are certain queen bees that posses a genetic difference that Suppresses Mite Reproduction, SMR. Many identical colonies, but headed by different queens, were examined and it was found that some colonies had many fewer mites than others. Therefore, the queens of the colonies with the fewest mites were used as breeder queens to try to isolate this genetic difference, and this was repeated over and over until colonies are now established that have very few mites present even under harsh conditions. Briefly (that word again), it was found that not every female mite that enters a bee larval cell produces any ADULT mite progeny. This fact can be divided into 5 categories: a) mites how don't lay any eggs, b) mites who die before laying any eggs, c) mites who only produce a son and no daughters, d) mites whose progeny die beforereaching mite adulthood. and e) mites whose progeny has been laid too late to reach mite adulthood.

Science cannot yet explain this genetic difference in queens, but as long as a queen that possesses this genetic attribute can also produce gentle bees, high honey production, and other desired qualities, do we need an explanation of this difference now? If SMR queens, regardless of whether they are Italians, Carniolans, Russian or what-have-you can live and perform without the use of chemicals to control varroa mites, I think that is fine. SMR queens are available from Glenn Apiaries in California, and other sources found in the monthly bee magazines. Do I have either HYGIENIC queens or SMR queens yet? No, but I surely will soon! Surely, you should realize that there are some queen breeders that are going to put a great deal of emphasis on producing your $12 queen from a HYGIENIC or SMR breeder queen; while there are others who say or even advertise that their queens are HYGIENIC or SMR queens, but they have never bought a single breeder queen that fits these new genetic differences. The well storied "use car salesman" is not the only liar in this world.

This coming spring, one of my PINK PAGES will contain a detailed description of how YOU can test your own colonies to determine if your queen is HYGIENIC or not. You do not have to be a scientist to make the test, but just follow the directions of a scientist.

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A NEW BOOK is out, and it costs only $15, cost of a restaurant dinner. Dr. Jim Tew, the Alabama "boy" who was smart enough to earn is Ph. D. at the University of Maryland before Dr. Dewey Caron "absconded" to Delaware, has written the "brief" (that word again) 225 page book entitled BEEKEEPING PRINCIPLES. It was partially designed to replace Walter T. Kelly's famous "Starting Right With Bees", a book for beginners; but knowledgeable Jim Tew just had to do more than write for beginner's and he did. The book is written totally different than my l-o-n-g way of writing, and is written in concise detail, but covering almost all subjects that a hobbyist beekeeper needs to know. I hardily recommend the book!

Although not my favorite President, I am constantly reminded of a statement in John F. Kennedy's Inaugural Address which says .....Not what the country can do for you, but

what you can do for your country. Good beekeeping is "Not what the bees can do for you, but what you can do for your bees". It is a beeKEEPER'S job to HELP his bees.

Still, even in the year 2001, we find so many beeHAVERS and even some beeKEEPERS who are still trying to raise bees like "Daddy did", don't read any recent bee books, don't attend bee meetings that have presentations by bee scientists and researchers, or don't attend meetings at all. Their bees die, and they wonder why, or explain to all about the bad winter, the summer drought, the lousy queen they bought, or that they could only look at their bees on Saturdays. There is no excuse for beeHAVERS when there are some fine recent books for sale, and some Master Beekeepers around who want to help. Why do I keep using that word recent? So many MAJOR PROBLEMS have appeared in these past 17 years, beginning with the tracheal mite in 1984, the Varroa mite in 1987, the entrance of the Africanized Bee into the U. S. in 1990, the small hive beetle in 1998, resistant American Foul Brood in 2000, plus other new problems. Just as computers have made the typewriter almost obsolete, books and articles written before about 1992, regardless of how famous the author was, are essentially OBSOLETE because they do NOT cover these subjects that are causing mayhem today. I think all beekeepers except the real beginners should have The BEEKEEPERS HANDBOOK, 3rd Edition of April 1998 by Dr. Diana Sammataro, cost $30; the beekeeper's "desk Bible", THE HIVE AND HONEY BEE, 1992 Extensively Revised Edition, arranged by Dadant's Joe Graham and its 1300+ pages written by the top 33 bee scientists and researchers of the U.S., cost $36; and finally Dr. Jim Tew's new book, BEEKEEPING PRINCIPLES for $15. Surely somebody might want to give you a book for Christmas. All the bee equipment houses sell the first two books, and Jim Tew's book is available from Walter T. Kelly Co in Clarkson, KY

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Speaking of attending meetings, I have two meetings in my mind that I want to call to your attention: January 9th, the January meeting of MCBA. I have purchased 125 SUPER slides made by MAAREC, Mid-Atlantic Apiculture Research and Extension Consortium, whose principals are Doctors Scott Camazine, Dewey Caron, Maryann Frazier, Jeff Pettis, and Diana Sammataro. 52 slides are about Honey Bee Diseases, and the other 73 slides are about Honey Bee Parasites, Pests, and Predators. I will show half of these slides along with explanatory discussion on January 9th., and perhaps the remaining half at our February 13th meeting. Some members have missed quite a few meetings lately (my PINK PAGES can NOT take the place of a good discussion), so I hope you can attend.

Wednesday, January 16th is opening day for the annual meeting of the American Beekeeping Federation in Savannah, Georgia, and it ends on Saturday night, January 19th. Here will be gathered perhaps 500-700 beekeepers and their wives together with queen breeders, honey producers, scientists, researchers, equipment manufacturers and a trade show, package bee suppliers, and honey packers. National Honey Board officials will be there. YOU can sit down and talk with all of these people and LEARN almost anything you want to know. There are talks, slides, panel discussions, and workshops about all kinds of subjects. Ask the commercial beekeeper who owns 10,000 colonies

why he requeens every year; or ask the Director of the Apistan Company what can you do if your mites are resistant to Apistan; or ask a package bee company what they are going to do about shipping now after changes in U. S. Postal Service; or talk to Dave Westervelt, the small hive beetle expert, how to avoid the SHB; or talk to a producer of a million pounds of honey every year about how many supers he installs on a colony all at one time, or talk to Dr. Marla Spivak about HYGIENIC bees; or talk about any subject that puzzles you.

I won't expect you to attend my 4 hour workshop about improving your management skills, because you hear enough of me at home. In addition to all of this, there are two special programs BEFORE and AFTER the official dates of January 16th - January 19th. On Tuesday, January 15th, there is a tour of Willbanks Apiaries via special bus (just 20 miles away) and how he raises and sells thousands and thousands of queens every year PLUS thousands of packages of bees; and REG Willbanks is going to be the HEAD guide and MAIN speaker, including a "Low Country boil (shrimp, corn, potatoes, sausage) and oyster roast, arriving back "home" in Savannah at 8 P.M. After the meeting ends on Saturday night, you can take a three day bus tour of Georgia and Florida apiaries, bee related companies and famous sites. You can forget the cold of Montgomery County, escape the horrible traffic into Washington, and get fat on that SOUTHERN COOKING with its Fried Chicken, Country Ham, Shoo Fly Pie, saltwater seafood, and of course, grits. Savannah itself was one of the few towns in the South that was not damaged in the Civil War and the beauty of the old South "stands out like a sore thumb" in and around Savannah. Hilton Head Island is just 50 miles away and Charleston, SC where I attended the Citadel before Pearl Harbor Day, and where the first shots of the Civil War were fired, is just 100 miles north. After the Terrorist Day of September 11th, don't you think it would be nice to see much of the country that made the U. S. the greatest country in the world! Lord willing, I will be whizzing around Savannah on my electric scooter and talking to my beekeeping friends from almost every state in the union; and I hope that you are one of them. Just watch for my honey-bee windsock on my scooter.

George W. Imirie, Jr. Certified EAS Master Beekeeper